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Problem/Symptom	Failure Check/FRU Replacement
All problems	Before replacing any FRUs, check all connections and associated items for continuity.
Raster missing and green LED not lit	Replace card assembly
Raster missing, but green LED flashes during attempt to power on	Replace card assembly
Raster missing, but green LED lit	Check if CRT heater is glowing: • No – replace card assembly, but if fault persists replace CRT • Yes – turn G2 potentiometer clockwise. If a raster appears, readjust the video gain, and cut-off potentiometer if possible, otherwise replace card assembly. If no raster appears, replace the CRT.
Raster visible but one or two colors missing	Turn the video 'cut-off' or 'gain' controls for the missing color(s) clockwise. If the color(s) reappear, readjust the video gain and cut-off potentiometer if possible, otherwise replace the card assembly. If the colors do not appear, replace the CRT.
Raster visible but is too narrow, or does not fill the bezel vertically.	Replace card assembly.

Problem/Symptom	Failure Check/FRU Replacement
No E-W pincushion correction.	Turn RV201 to check whether readjustment is possible, otherwise, replace the card assembly.
Data does not center horizontally.	Turn RV200 H.PHASE to check whether readjustment is possible, otherwise, replace the card assembly. NOTE: On units with a metal card tray, first adjust RV203 to center the background raster, then RV200. If the fault persists, replace the CRT.
Data does not synchronize horizontally.	Replace the interface cable. If the fault persists, replace the card assembly.
Data has insufficient width.	Turn RV202 WIDTH to check whether readjustment is possible, otherwise replace the card assembly.
Data does not synchronize vertically.	Replace the interface cable. If the fault persists, replace the card assembly.
Data has insufficient height.	Turn RV300 HEIGHT to check whether readjustment is possible, otherwise, replace the card assembly.
Data does not center vertically.	Turn RV301 V.CENT to check whether readjustment is possible, otherwise, replace the card assembly. If the fault persists, replace the CRT.
Vertical linearity poor.	Turn RV302 V.LIN to check whether readjustment is possible, otherwise, replace the card assembly.
Horizontal linearity poor.	Replace the card assembly.
Color(s) missing.	Replace the interface cable. If the fault persists, replace the card assembly. If the fault still persists, replace the CRT.
Maximum white point poor.	Make sure the brightness control is in the center detent position. Readjust RV700 G.GAIN, RV701 R.GAIN, and RV702 B.GAIN, to determine whether the correct white color can be obtained, otherwise replace the card assembly.

Problem/Symptom	Failure Check/FRU Replacement
Minimum white point poor.	Make sure the brightness control is in the center detent position. Readjust RV800 G.CUT-OFF, RV801 R.CUT-OFF and RV802 B.CUT-OFF, to determine whether the correct white color can be obtained. If not, replace the card assembly.
Convergence poor.	Replace the CRT.
Focus poor.	Turn the focus potentiometer to see if readjustment is possible. If not, replace the card assembly. If the fault persists, replace the CRT.

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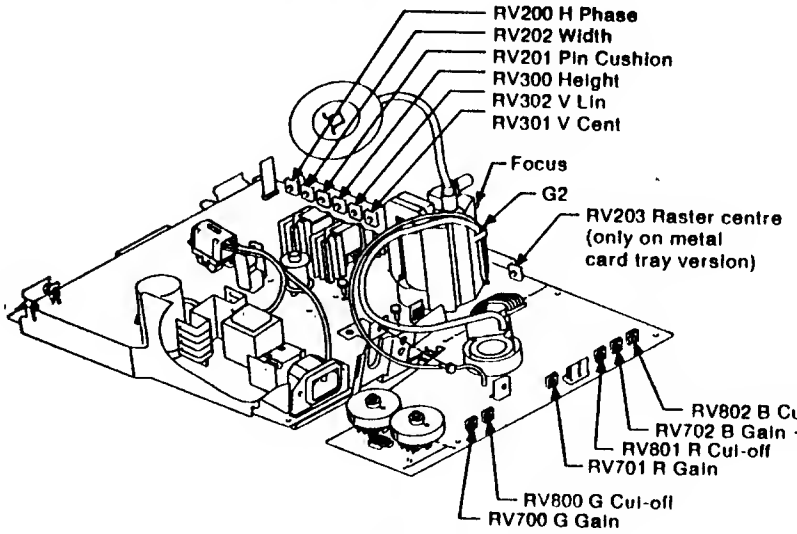
Focus and Cut-Off Adjustment



Note: If the geometry is reset, it may be neces brightness setting.

Pincushion

1 Press the F2 function key, then press the release both keys).

2 Adjust the SIDE-PINCUSHION potentiome geometrically regular square.

Horizontal Centering

1 Press the F2 function key, then press enc keys (then release both keys).

2 Note: Before doing this step, if you are s a metal card tray, adjust RV203 first to ce the bezel.

Adjust the 'RV200 H.PHASE' potentiomet pattern horizontally on the screen.

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Vertical Linearity

1 Press the F2 function key, then press and hold the keys (then release both keys).

2 Adjust the 'RV302 V.LIN' potentiometer to get squ width.

Horizontal Width

1 Press the F2 function key, then press and hold the keys (then release both keys).

2 Adjust the 'RV202 WIDTH' to get a horizontal widt

Vertical Centering

1 Press the F2 function key, then press and hold the keys (then release both keys).

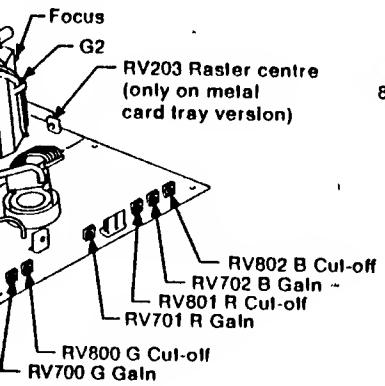
2 Adjust the 'RV301 V.CENT' potentiometer to centr pattern vertically on the screen.

Vertical Height

1 Press the F3 function key, then press and hold th keys (then release both keys).

2 Adjust the 'RV300 HEIGHT' potentiometer to get a mm.

RV200 H Phase
RV202 Width
RV201 Pin Cushion
RV300 Height
RV302 V Lin
RV301 V Cent



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If the geometry is reset, it may be necessary to readjust the nese setting.

shion

Press the F2 function key, then press the ALT and F1 keys (then release both keys).

Adjust the SIDE-PINCUSHION potentiometer RV201 to get a geometrically regular square.

ontal Centering

Press the F2 function key, then press and hold the SHIFT and F5 keys (then release both keys).

Note: Before doing this step, if you are servicing a display with a metal card tray, adjust RV203 first to centralize the raster in the bezel.

Adjust the 'RV200 H.PHASE' potentiometer to centralize the pattern horizontally on the screen.

key, then press and hold the **ALT** and **F1**
th keys).

IN' potentiometer to get squares of equal

key, then press and hold the **SHIFT** and **F5**
th keys).

DTH' to get a horizontal width of 207 mm.

key, then press and hold the **SHIFT** and **F5**
th keys).

CENT' potentiometer to centralize the
he screen.

key, then press and hold the **SHIFT** and **F5**
th keys).

IGHT' potentiometer to get a height of 155

1 Set the brightness control to maximum.

2 Set the contrast control to maximum.

3 Turn RV800 G.CUT-OFF, RV801 R.CUT-OFF, and RV802 B.CUT-OFF fully clockwise.

4 Press the **F10** function key (on the PS/2 keyboard) to select a blank screen pattern on the display.

5 Turn the G2 potentiometer on the EHT transformer slowly clockwise until the first color appears. Turn the associated cutoff potentiometer fully counterclockwise.

6 Continue turning the G2 potentiometer clockwise until the second color appears. Turn the associated cutoff potentiometer fully counterclockwise also.

7 Continue turning the G2 potentiometer clockwise until the third color appears.

8 Readjust the first and second cutoff potentiometers and G2 to get the following white luminance and chromaticity:

cd/m²	x	y	(CIE COORDS)
2+1.0/-0	0.245+/-0.010	0.263+/-0.010	

Notes:

a. Green cutoff potentiometer (RV800) clockwise predominantly increases y.
b. Red cutoff potentiometer (RV801) clockwise predominantly increases x.
c. Blue cutoff potentiometer (RV802) clockwise predominantly decreases both x and y.

9 Set the brightness control to center detent. Turn RV700 G.GAIN, RV701 R.GAIN, and RV702 B.GAIN to mid position.

10 To set Focus, press the **F3** key, then press and hold the **ALT** and the **F1** keys (then release both) to get a 5 x 5 grid. Adjust Focus control on flyback transformer for the sharpest image.

11 Press the **F3** key, then the **F4** key, then the **F8** key, to select a white raster pattern and by using RV700 G.GAIN, RV701 R.GAIN, and RV702 B.GAIN only, set the center screen luminance and chromaticity with the Minolta TV Color Analyzer to:

cd/m²	x	y	(CIE COORDS)
120 to 150	0.313+/-0.010	0.329+/-0.010	

Notes:

a. Red gain potentiometer clockwise predominantly increases x.
b. Green gain potentiometer clockwise predominantly increases y.
c. Blue gain potentiometer clockwise predominantly decreases both x and y.
d. Clockwise rotation of all gain potentiometers increases Y (brightness).

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12 Press the **F3** key, then press and hold the **SHIFT** and the **F5** keys (then release both keys) to select a white crosshatch pattern again. Set the center screen brightness to 70 cd/m² using the contrast control. Check the dimensions and adjust if necessary.

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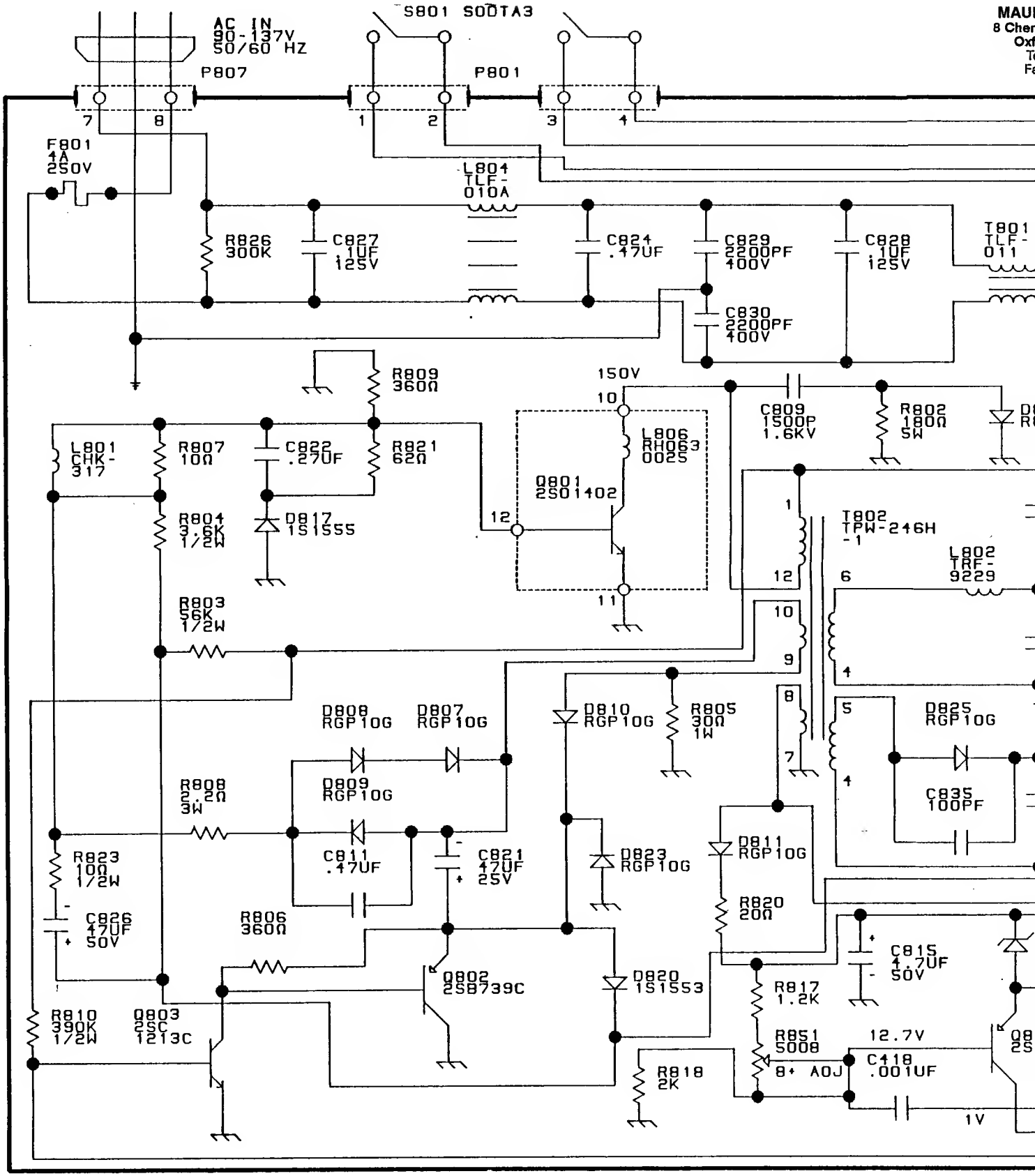

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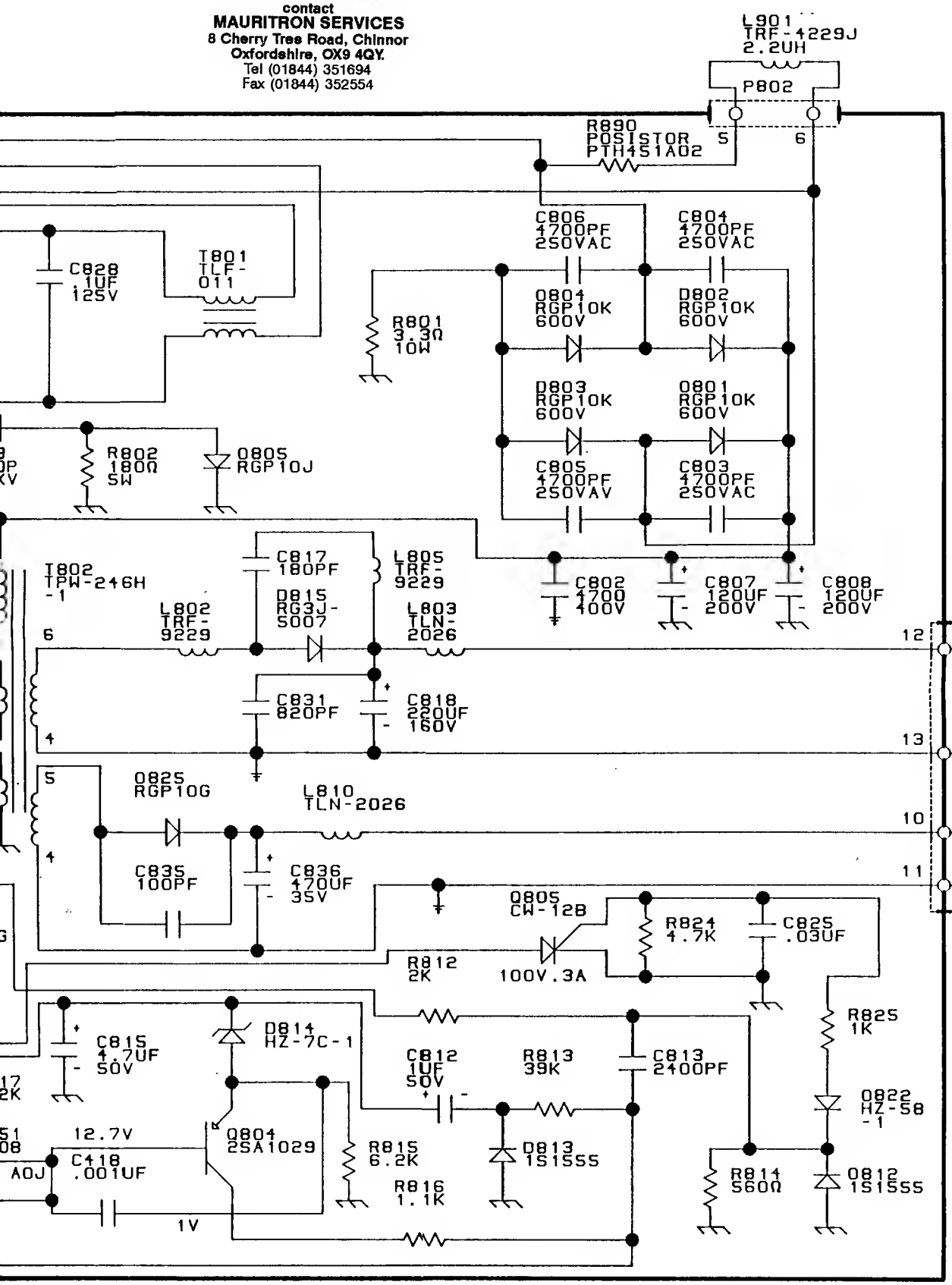

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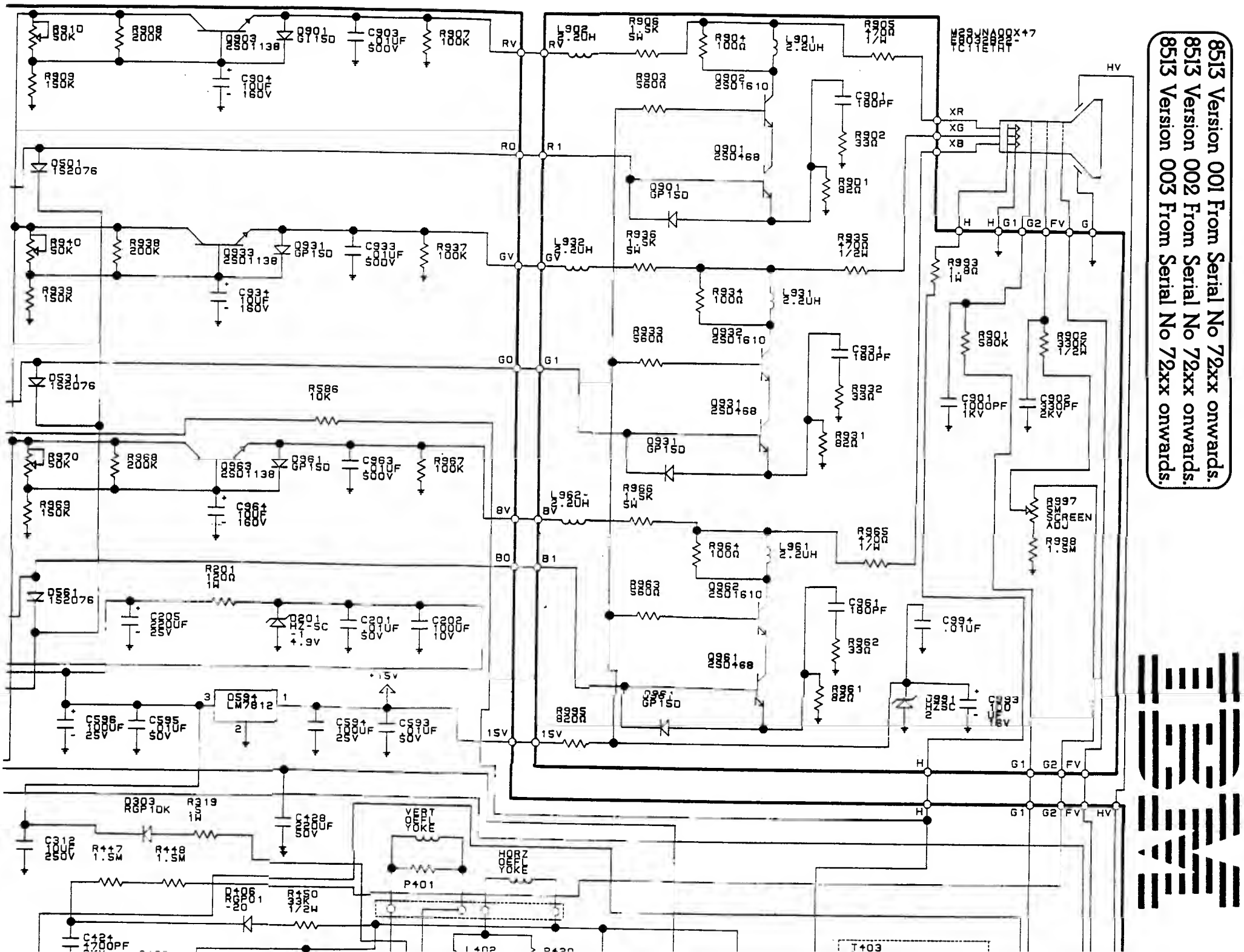

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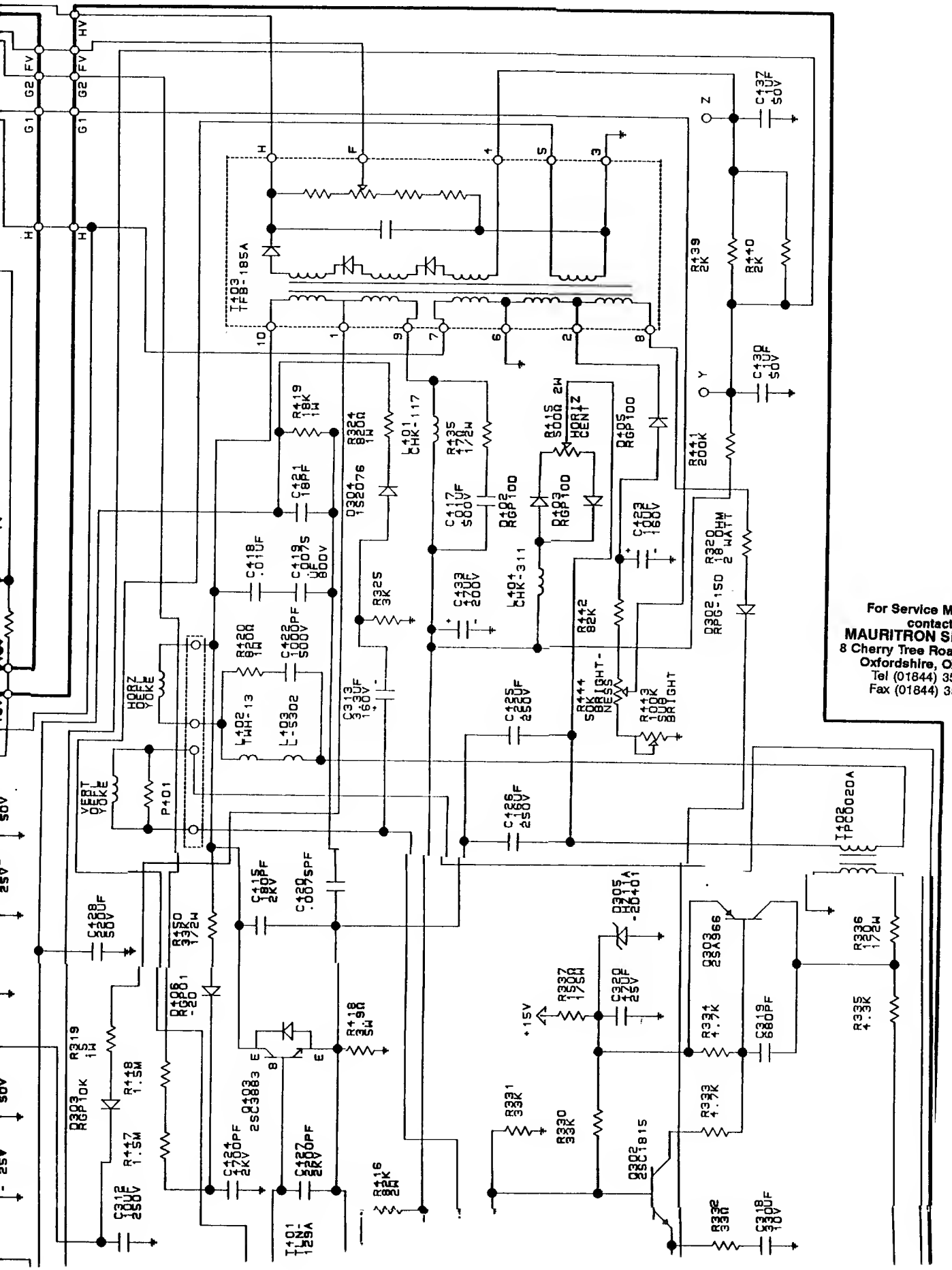

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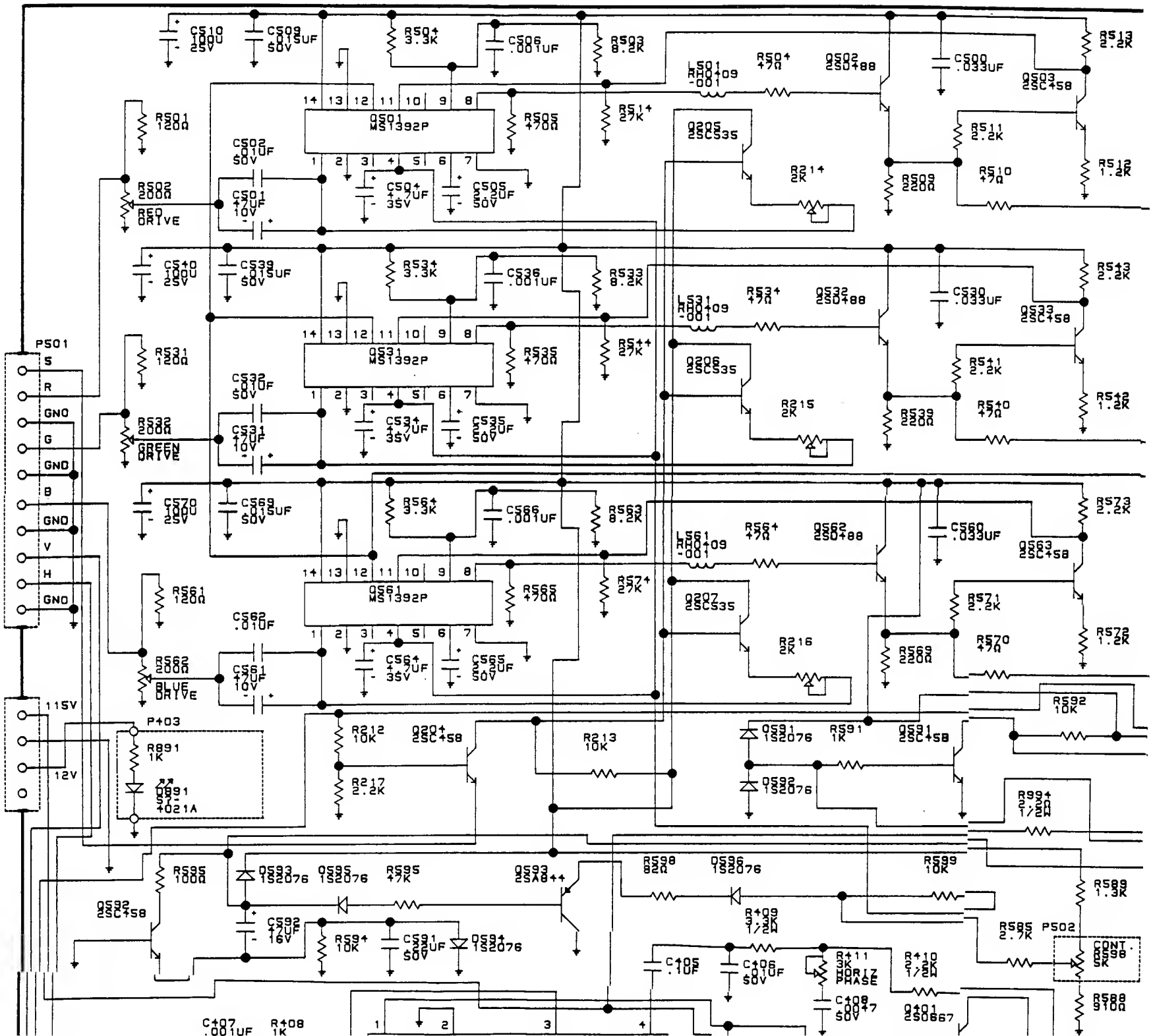

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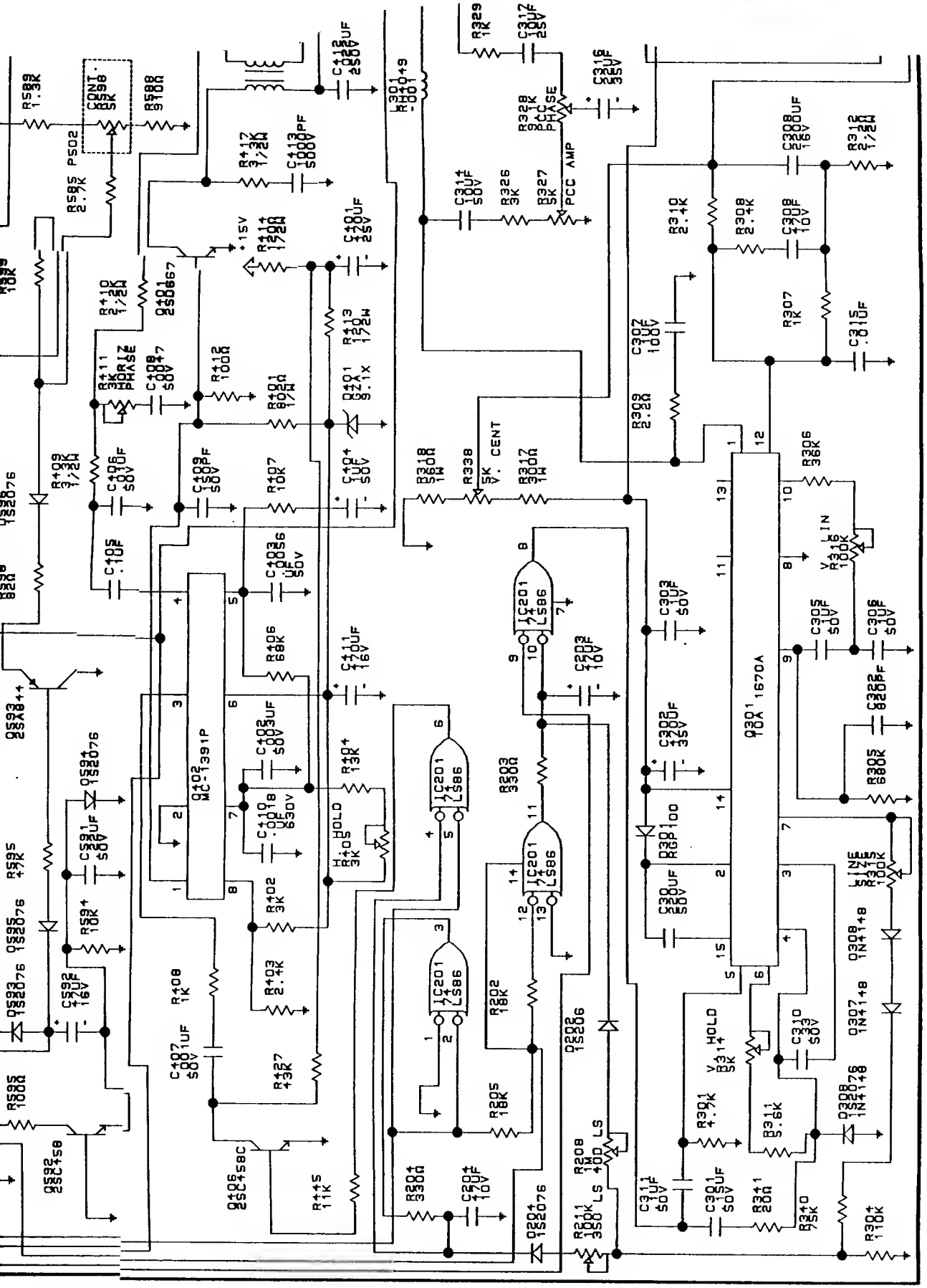

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